



**Missouri Department of Natural Resources**  
**Tributary to Barkers Creek - WBID 1029U001**  
**Water Chemistry Data, 2001-2007**

| Org   | Site         | Site Name                                   | Yr   | Mo | Dy | Time | H | Flow | C    | DO   | pH   | SC   | SO4  | Cl    | SO4+Cl |
|-------|--------------|---|------|----|----|------|---|------|------|------|------|------|------|-------|--------|
| MoDNR | 1209/1.3/0.1 | Trib. To Barker's Cr. nr. Mouth             | 2001 | 6  | 19 |      |   |      | 29   | 5.9  | 6    | 335  | 114  | 4.99  | 119    |
| MoDNR | 1209/1.3/0.1 | Trib. To Barker's Cr. nr. Mouth             | 2001 | 8  | 14 | 1445 |   |      | 26   |      | 2.8  | 1990 | 1190 | 5     | 1195   |
| MoDNR | 1209/1.3/0.1 | Trib. To Barker's Cr. nr. Mouth             | 2002 | 6  | 6  |      |   |      | 30   | 1.3  | 6.42 | 286  | 79.5 | 16.8  | 96     |
| MoDNR | 1209/1.3/0.1 | Trib. To Barker's Cr. nr. Mouth             | 2004 | 11 | 18 | 1440 |   |      | 13   | 8.6  | 4.1  | 415  | 182  | 5     | 187    |
| MoDNR | 1209/1.3/0.1 | Trib. To Barker's Cr. nr. Mouth             | 2005 | 5  | 6  | 1430 |   |      | 21.5 | 10.7 | 3.4  | 1077 | 535  | 5     | 540    |
| MoDNR | 1209/1.3/0.1 | Trib. To Barker's Cr. nr. Mouth             | 2006 | 12 | 14 | 1645 |   |      | 6    | 8.4  | 5    | 1080 | 440  | 4.43  | 444    |
| MoDNR | 1209/1.3/0.3 | Trib. to Barker's Cr. 75 yds. bl. CR NE 300 | 2003 | 4  | 24 | 1400 |   |      | 15   | 8.6  | 6.3  | 1025 | 257  | 6     | 263    |
| MoDNR | 1209/1.3/0.3 | Trib. to Barker's Cr. 75 yds. bl. CR NE 300 | 2003 | 6  | 10 | 1140 |   |      | 16   | 7.9  | 6.2  | 2100 | 584  | 5     | 589    |
| MoDNR | 1209/1.3/0.3 | Trib. to Barker's Cr. 75 yds. bl. CR NE 300 | 2004 | 6  | 17 | 1420 |   |      | 24   | 6.9  | 4.8  | 675  | 194  | 5     | 199    |
| MoDNR | 1209/1.3/0.3 | Trib. to Barker's Cr. 75 yds. bl. CR NE 300 | 2004 | 11 | 18 | 1410 |   |      | 12   | 8    | 4.6  | 460  | 170  | 7     | 177    |
| MoDNR | 1209/1.3/0.3 | Trib. to Barker's Cr. 75 yds. bl. CR NE 300 | 2005 | 5  | 6  | 1400 |   |      | 12   | 8.1  | 3.5  | 1221 | 606  | 4     | 610    |
| MoDNR | 1209/1.3/0.3 | Trib. to Barker's Cr. 75 yds. bl. CR NE 300 | 2005 | 12 | 6  | 1510 |   |      | 2.4  | 5.5  | 3.7  | 2290 | 1220 | 3     | 1223   |
| MoDNR | 1209/1.3/0.3 | Trib. to Barker's Cr. 75 yds. bl. CR NE 300 | 2006 | 6  | 7  | 1120 |   |      | 20   | 2.8  | 3.7  | 1100 | 874  | 3.75  | 878    |
| MoDNR | 1209/1.3/0.3 | Trib. to Barker's Cr. 75 yds. bl. CR NE 300 | 2007 | 6  | 13 | 1450 |   |      | 22   | 4.6  | 3.6  | 1900 | 645  | 4     | 649    |
| MoDNR | 1209/1.3/0.4 | Trib. To Barker's Cr. nr. Road              | 2001 | 9  | 12 |      |   |      | 18   | 5.3  | 2    | 1720 | 938  | 2.499 | 940    |
| MoDNR | 1209/1.3/0.4 | Trib. To Barker's Cr. nr. Road              | 2001 | 10 | 4  | 1010 |   |      | 15   | 1.7  | 3    | 2080 | 1070 | 2.499 | 1072   |
| MoDNR | 1209/1.3/0.4 | Trib. To Barker's Cr. nr. Road              | 2001 | 11 | 27 |      |   |      | 15   |      | 3    | 1360 | 1090 | 8.09  | 1098   |
| MoDNR | 1209/1.3/0.4 | Trib. To Barker's Cr. nr. Road              | 2002 | 6  | 6  |      |   |      | 19   | 4.8  | 3.67 | 813  | 452  | 5.89  | 458    |
| MoDNR | 1209/1.3/0.4 | Trib. To Barker's Cr. nr. Road              | 2002 | 10 | 3  | 1415 |   |      | 23   | 4.2  | 3.6  | 1450 | 800  | 5     | 805    |
| MoDNR | 1209/1.3/0.4 | Trib. To Barker's Cr. nr. Road              | 2003 | 4  | 24 | 1320 |   |      | 15   | 9    | 6    | 880  | 255  | 7     | 262    |
| MoDNR | 1209/1.3/0.4 | Trib. To Barker's Cr. nr. Road              | 2003 | 6  | 10 | 1110 |   |      | 17   | 7.9  | 6    | 1620 | 686  | 6     | 692    |
| MoDNR | 1209/1.3/0.4 | Trib. To Barker's Cr. nr. Road              | 2004 | 6  | 17 | 1400 |   |      | 25   | 4.4  | 4.4  | 855  | 193  | 6     | 199    |
| MoDNR | 1209/1.3/0.4 | Trib. To Barker's Cr. nr. Road              | 2006 | 6  | 7  | 1100 |   |      | 21   | 3.8  | 2.9  | 1618 | 1200 | 4.11  | 1204   |
| MoDNR | 1209/1.3/0.4 | Trib. To Barker's Cr. nr. Road              | 2006 | 12 | 14 | 1630 |   |      | 8    | 7.9  | 3.8  | 1790 | 752  | 3.4   | 755    |

The water quality standard for the protection of aquatic life for pH is pH levels from 6.5 to 9.0. For pH, the Listing Methodology Document allows a water to be judged as impaired if more than 10 percent of the measurements fail to meet the water quality standard. Twenty-four of 24 pH measurements exceeded the standard, or 100 percent.

The water quality standard for the protection of aquatic life for sulfate plus chloride is 1000mg/L. The Listing Methodology Document allows a water to be judged as impaired if 10 percent of measurements fail to meet the water quality standard. Five of 24 samples exceeded the standard, or 20.8 percent.

However, in order to judge an unclassified water body as impaired it must be proven that acute or narrative criteria was violated. Because the department knows of no biological data that shows acute toxicity to aquatic life resulted from the conditions, Tributary to Barkers Creek cannot be judged to be impaired.

The U.S. Environmental Protection Agency approved a total maximum daily load for pH and sulfate for Tributary to Barkers Creek in 2004.

Missouri Department of Natural Resources, Water Protection Program, (573) 751-1300, [www.dnr.mo.gov](http://www.dnr.mo.gov)

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